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(54) **Composite aerofoil blade with wear-resistant tip**

(57) The present invention relates to a reinforcing tip cap (26) for an aerofoil blade. The tip cap comprises a body (28) for attaching to the tip (34) of an aerofoil blade and a plurality of abrading elements (32) fixed in the body for abrading a surface against which the tip cap rubs in use.

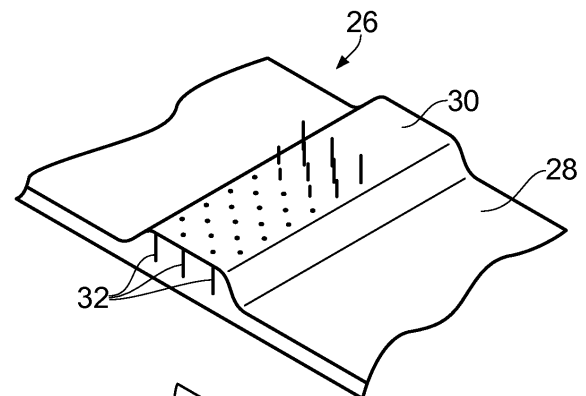


FIG. 2a

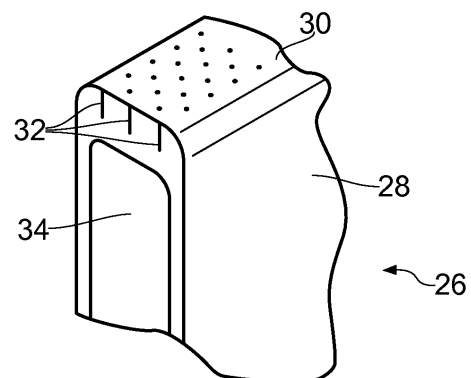


FIG. 2b



EUROPEAN SEARCH REPORT

 Application Number
 EP 10 16 2622

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 0 496 550 A1 (GEN ELECTRIC [US]) 29 July 1992 (1992-07-29) * column 10, lines 6-18 * * figure 4 *	1,2,4,9, 12,13	INV. F01D11/12 F01D5/20
A	US 4 851 188 A (SCHAEFER ROBERT P [US] ET AL) 25 July 1989 (1989-07-25) * abstract * * column 8, lines 5-19 * * figure 4 *	1-13	
A,D	US 5 112 194 A (MORE EDWIN R [US]) 12 May 1992 (1992-05-12) * column 3, line 22 - column 4, line 68 * * figures 1-3 *	1-13	
			TECHNICAL FIELDS SEARCHED (IPC)
			F01D F04D
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 30 October 2017	Examiner Gebker, Ulrich
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03.02 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 10 16 2622

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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30-10-2017

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0496550	A1	29-07-1992	CA 2056460 A1 26-07-1992
			DE 69222197 D1 23-10-1997
			DE 69222197 T2 09-04-1998
			EP 0496550 A1 29-07-1992
			JP H04330301 A 18-11-1992
			US 5141400 A 25-08-1992

US 4851188	A	25-07-1989	NONE

US 5112194	A	12-05-1992	NONE
